# Nevada Land Withdrawals from Mineral Entry A Historical Perspective

Dennis Bryan
Nevada Commission
on Mineral Resources
(Senior VP of Development
Western Lithium Corporation)

Alan Coyner Administrator Nevada Division of Minerals

Presentation at:
Northwest Mining Association's
118<sup>th</sup> Annual Meeting
December 5, 2012

Modified from original study in 2011 by:
S. Bassett, I. Morrison, and K. Berry
Department of Geography
Mackay School of Earth Sciences and
Engineering, College of Science
University of Nevada, Reno

University of Nevada, Reno

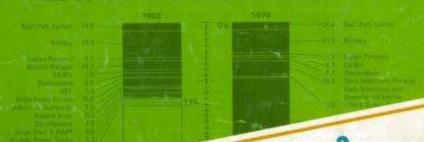
Nevada Commission on Mineral Resources
Division of Minerals

"Unbelievable as it may seem, an area larger than that encompassing 25 of the 27 states east of the Mississippi River is no longer accessible even for mineral exploration, not to mention development for mining"

J. Allen Overton. Jr.
President
American Mining Congress



#### PUBLIC LANDS EXCLUDED FROM MINERAL EXPLORATION AND DEVELOPMENT UNDER THE MINING LAW



## Is Our Account Overdrawn?

Let du thefundu (A. 10 the Law & 10 the Mills Care)

EEGENO:

WITHDRAWN & SELECTOR OF THE MILLS CARE (A. 10 the Mills Care)

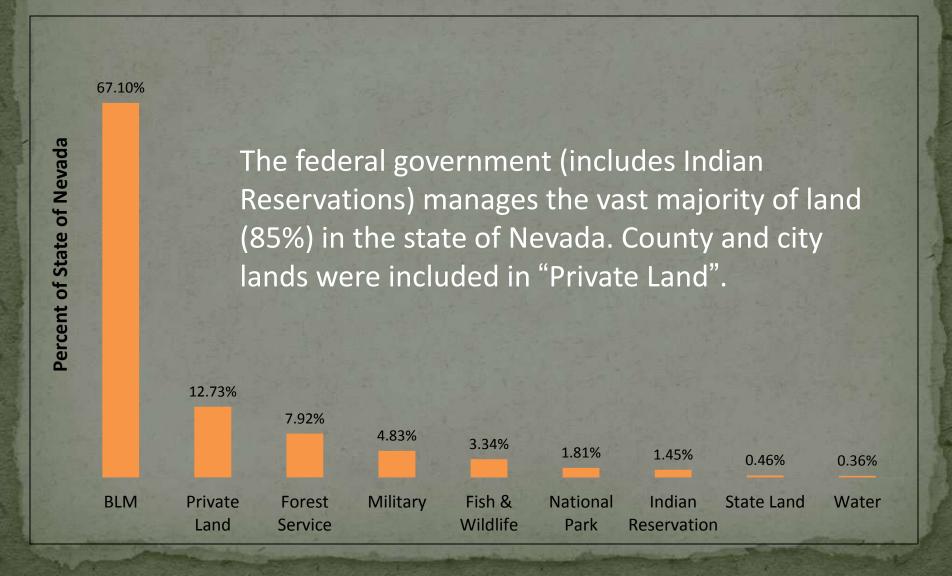
675

17 States
18 States
19 States
19 After States
19 After States
10 After St

## NEVADA Statistics

- Became Territory of the United States in 1848 as part of the Treaty with Mexico following the Mexican-American War
- Part of Utah Territory originally then became Nevada Territory in 1860
- Established as the 36<sup>th</sup> state of the Union October 31, 1864 Population @ 50,000
- Total Area: 70,264,000 acres, 7<sup>th</sup> largest state

## Who Manages/Owns Nevada Lands?



## Land Withdrawal By Decade



16 Acres (Millions)

6

2

0

230 2340 340 340 340 230 230 200 2010

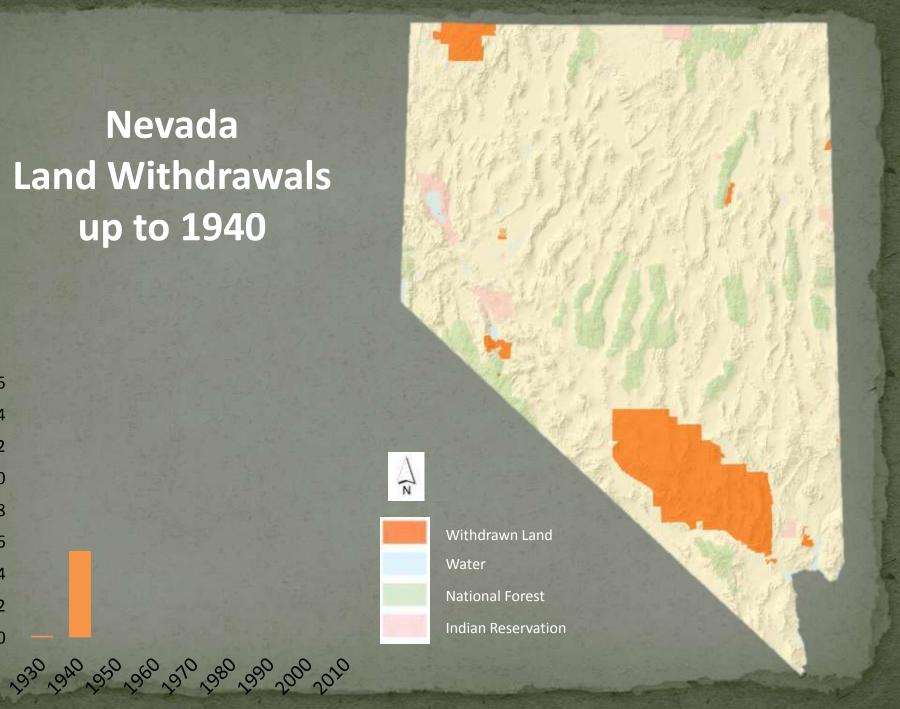
16

6

2

0

Acres (Millions)



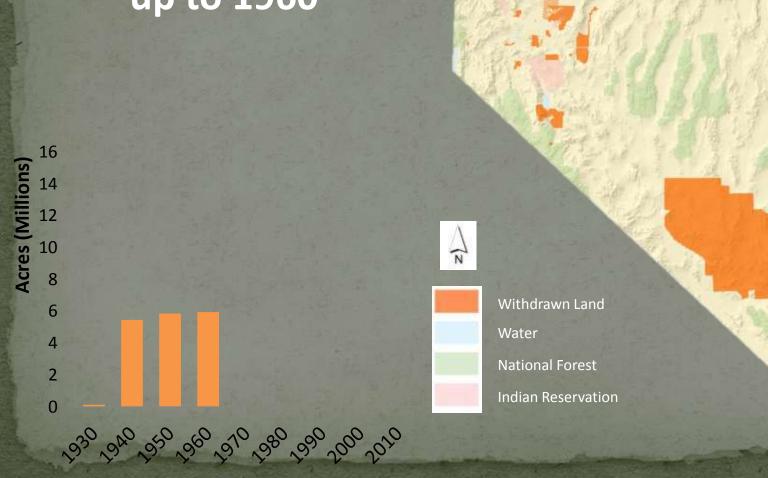
16

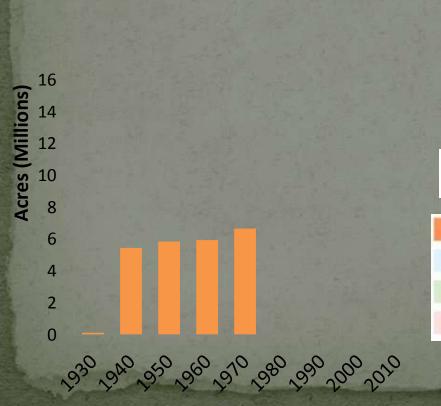
6

0

Acres (Millions)

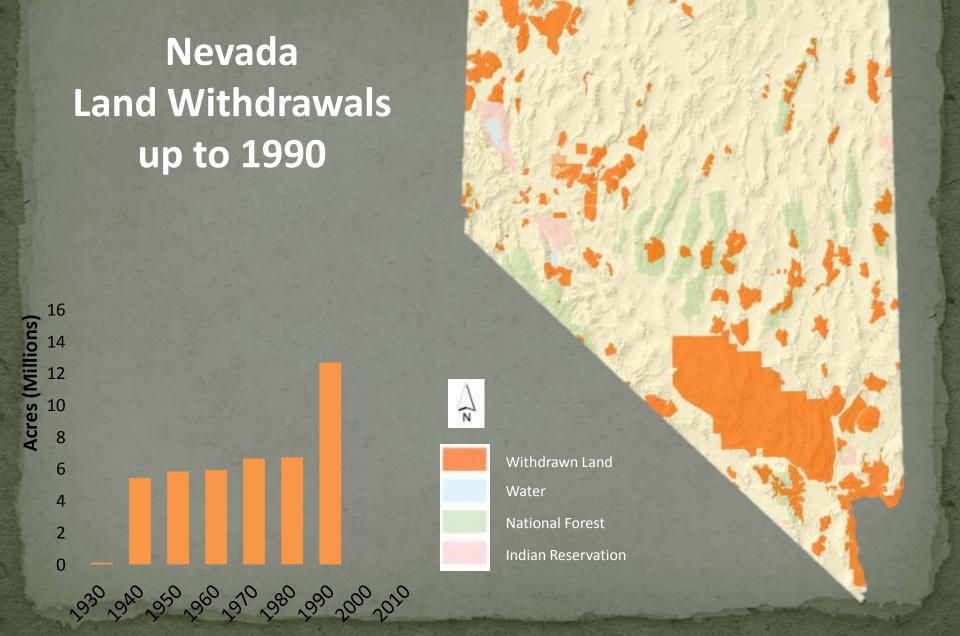




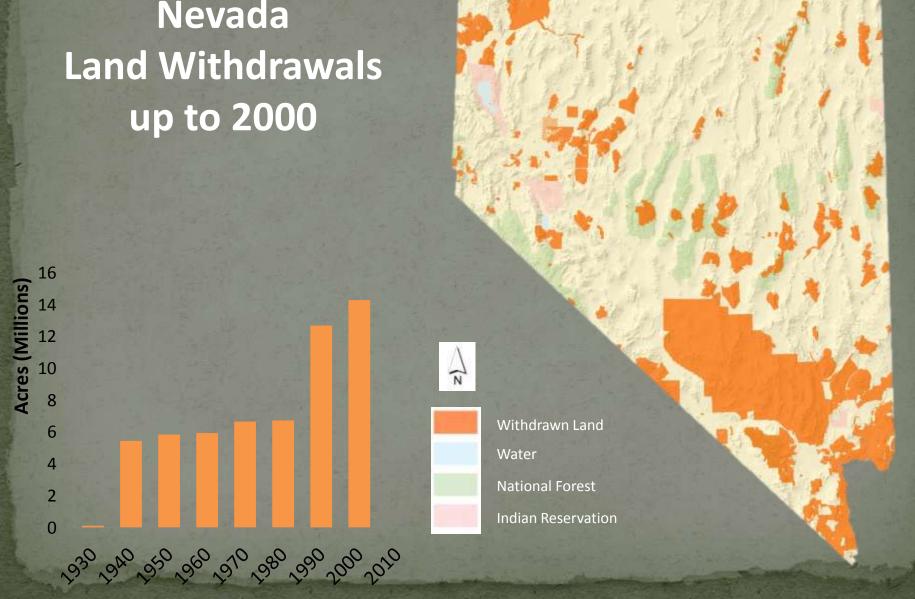


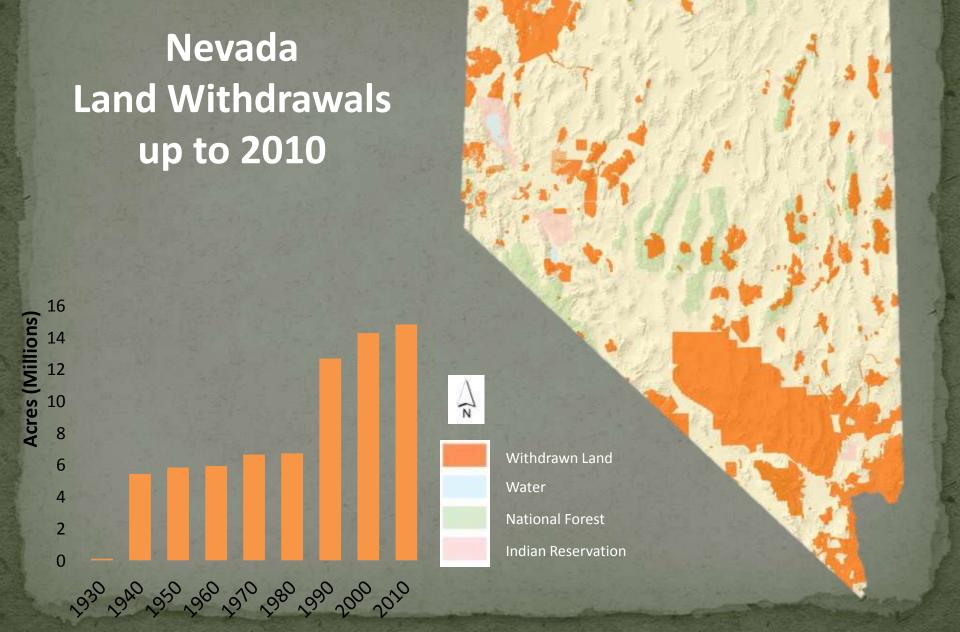






Nevada up to 2000





## **Current Land** Withdrawal **Status** (2012)

#### Withdrawn Lands

Areas of Critical Environmental Concern (ACEC)

Fish & Wildlife Areas

Military Areas

**National Conservation Areas** 

National Parks & Recreation Areas

Research Natural Areas

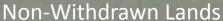
Nevada State Parks

**Urban Interface Withdrawals** 

Wilderness Areas

Instant and Wilderness Study Areas

Wildlife Management Areas



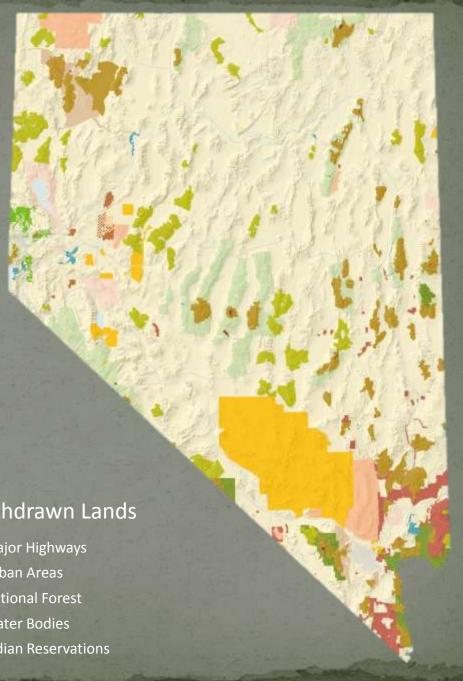
Major Highways

Urban Areas

**National Forest** 

Water Bodies

**Indian Reservations** 



## Land Area Totals

#### As a percentage of the entire state:

Year	Acres	Percent of Nevada
1930	132,247	0.19%
1940	5,460,598	7.72%
1950	5,861,114	8.28%
1960	5,951,860	8.41%
1970	6,672,218	9.43%
1980	6,740,812	9.53%
1990	12,701,336	17.95%
2000	14,299,822	20.21%
2010	14,848,842	20.99%

-Wilderness

### Land Area Totals (continued)

Land Use	Acres	% of Total Withdrawn	% of Nevada
Military <sub>1</sub>	4,261,353	28.70%	6.02%
Wilderness₂	3,356,235	22.60%	4.74%
Instant & Wilderness Study Area₃	2,737,106	18.43%	3.87%
National Wildlife Range & Refuge₄	1,519,326	10.23%	2.15%
Areas of Critical Environmental Concern₅	1,124,522	7.57%	1.59%
National Park & Recreation Area <sub>6</sub>	710,446	4.78%	1.00%
National Conservation Area <sub>7</sub>	606,117	4.08%	0.86%
Urban Interface <sub>8</sub>	202,938	1.37%	0.29%
Wildlife Management Area <sub>9</sub>	191,645	1.29%	0.27%
State Park <sub>10</sub>	131,330	0.88%	0.19%
Research Natural Area <sub>11</sub>	7,784	0.05%	0.01%
Totals	14,848,802	100.00%	20.99%

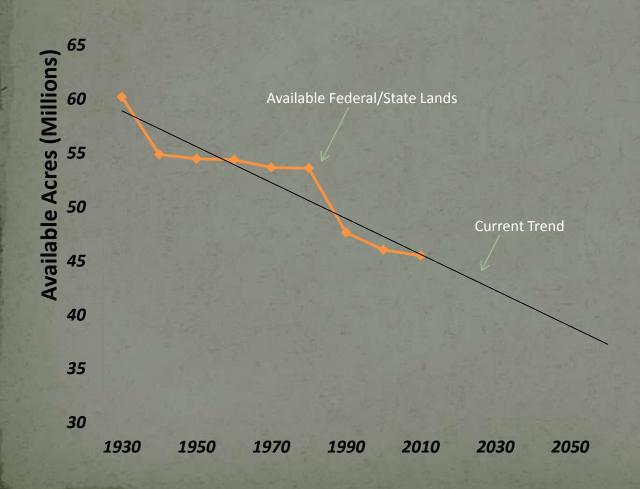
- 1 The Military total includes portions of the National Wildlife Range & Refuge.
- 2 The Wilderness total includes portions of the National Conservation Area, Research Natural Area, National Park and Recreation, Areas of Critical Environmental Concern, and Wildlife Management Area.
- 3 The Instant & Wilderness Study Area includes portions of the National Park and Recreation Area and the Areas of Critical Environmental Concern.
- 4 The National Wildlife Range and Refuge total is only that area not included in the Military Area.
- 5 The Areas of Critical Environmental Concern total is only that area not included in the Wilderness Area, the Instant and Wilderness Study Area, the Urban Interface Area, and the National Conservation Area.
- <sup>6</sup> The National Park and Recreation Area total is only that area not included in the Wilderness Area and the Instant and Wilderness Study Area.
- 7 The National Conservation Area total includes portions of the Areas of Critical Environmental Concern and State Park Area.
- 8 The Urban Interface Area total includes portions of the Areas of Critical Environmental Concern.
- <sub>9</sub> The Wildlife Management Area total is only that area not included in the Wilderness Area.
- $_{\rm 10}$  The State Park Area total is only that area not included in the National Conservation Area.
- $_{\mbox{\scriptsize 11}}$  The Research Natural Area total is only that area not included in the Wilderness Area.

## Land Area Totals

Land Use	Acres	% of Total Withdrawn	% of Nevada
Wilderness	2,599,421	17.51%	3.67%
Wilderness/National Conservation Area	437,051	2.94%	0.62%
Wilderness/National Park & Recreation Area	297,047	2.00%	0.42%
Wilderness/Research Natural Area	14,949	0.10%	0.02%
Wilderness/Research Natural Area/National Park & Recreation Area	3,987	0.03%	0.01%
Wilderness/Areas of Critical Environmental Concern	3,375	0.02%	0.00%
Wilderness/National Conservation Area/Areas of Critical Environmental Concern	405	0.00%	0.00%
Instant & Wilderness Study Areas	2,674,715	18.01%	3.78%
Instant & Wilderness Study Area/National Park & Recreation Area	57,952	0.39%	0.08%
Instant & Wilderness Study Area/Areas of Critical Environmental Concern	4,439	0.03%	0.01%
Urban Interface	198,483	1.34%	0.28%
Urban Interface/Areas of Critical Environmental Concern	4,455	0.03%	0.01%
Research Natural Area	7,784	0.05%	0.01%
National Conservation Area	597,564	4.02%	0.84%
National Conservation Area/Areas of Critical Environmental Concern	8,017	0.05%	0.01%
National Conservation Area/State Park	536	0.00%	0.00%
Areas of Critical Environmental Concern	1,124,522	7.57%	1.59%
Military Area	3,418,626	23.02%	4.83%
Military Area/National Wildlife Range & Refuge	842,727	5.68%	1.19%
National Wildlife Range & Refuge	1,519,326	10.23%	2.15%
Wildlife Management Area	191,685	1.29%	0.27%
National Park & Recreation Area	710,446	4.78%	1.00%
State Park	131,330	0.88%	0.19%
Totals	14,848,842	100.00%	20.99%

### **Current Trend**

(Summary Result)



The chart to the left depicts the decrease in available federal/state lands by decade. Since 1930, approximately 1,650,000 acres of land are withdrawn every 10 years from mining use. By 2060, at the current trend, almost half of the state will be withdrawn from mining use leaving less than 40 million acres available.

## Potential Mineral Withdrawals

- Sage Grouse Habitat
  - 15,000,000 acres?
- Yerington Wilderness Area
  - 80,000 acres?
- Southern Nevada Renewable Energy Withdrawal
- Pine Forest Wilderness
- USFS Roadless Areas
- BLM ATV Proposed Withdrawals

#### Greater Sage Grouse Habitat

Category 1:

Essential/Irreplaceable – 8,639,212 acres

Category 2:

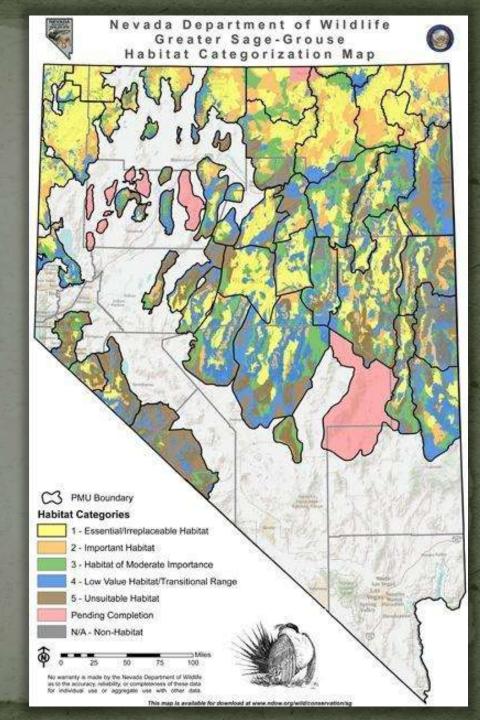
Important -

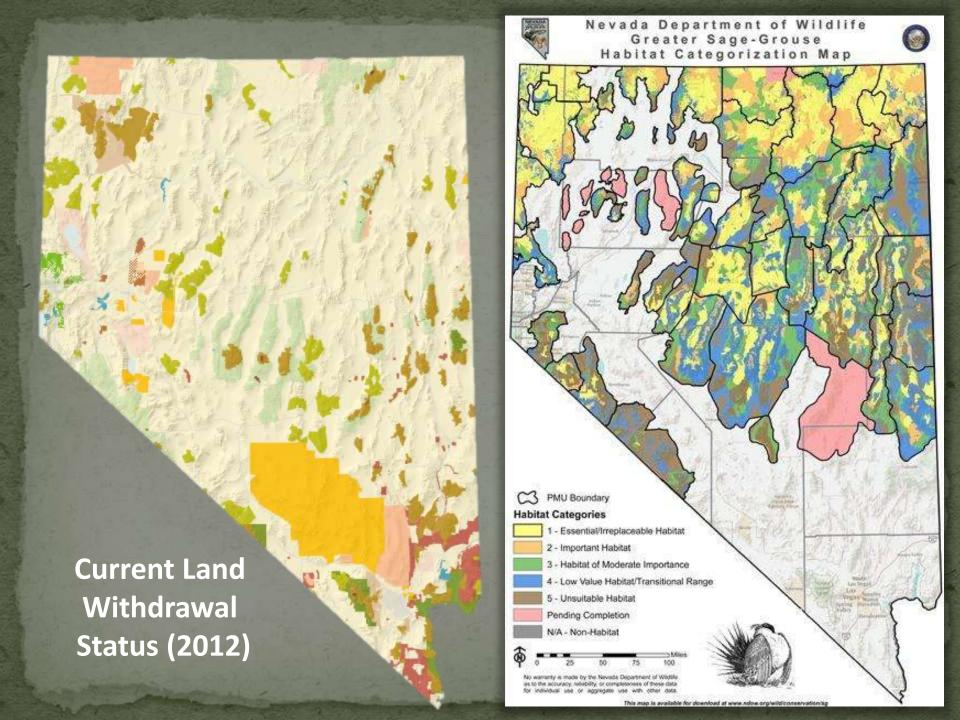
4,444,148 acres

Category 3:

Moderate Importance – <u>2,690,439</u> acres

Total -15,773,799 acres





## Land Withdrawal, the Future

- Spatial distribution of recent (last 30 years) land withdrawals appears to select for montane environments
  - Visual interpretation
  - Wilderness or Wilderness Study Areas
- Solar power generation in the Southern portion of the state is or is becoming the great new land withdrawal
- With the environmental legislation as of late and trends in climate new reserves (S. California) may be sought
- Carbon credit legislation may cause a push for preservation of vegetation on public land

### **Current Historical Trend**

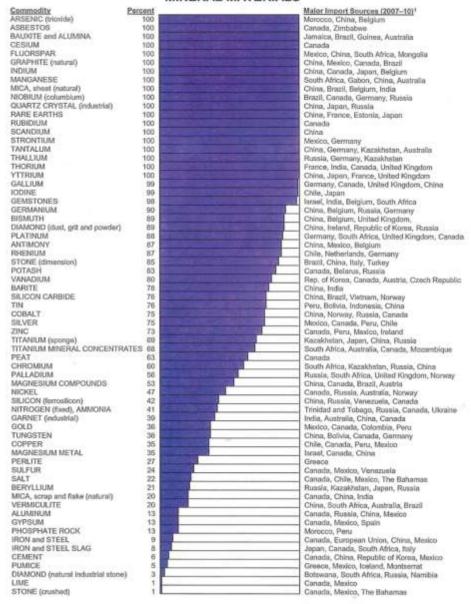
(Summary Result)



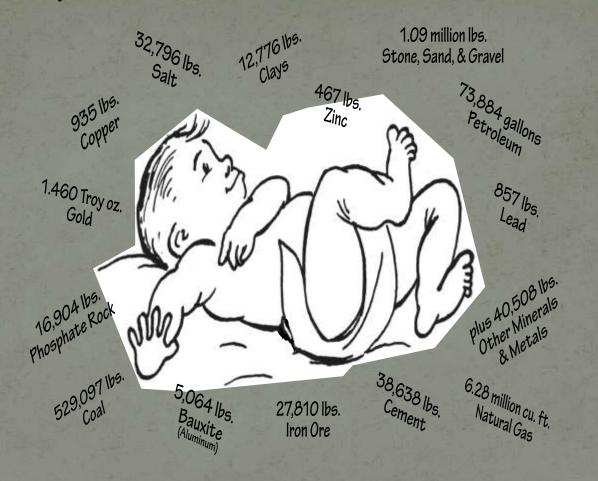
The chart to the left depicts the decrease in available federal/state lands by decade. Since 1930, approximately 1,650,000 acres of land are withdrawn every 10 years from mining use. By 2060, at the current trend, almost half of the state will be withdrawn from mining use leaving less than 40 million acres available.

#### ≥USGS

#### 2011 U.S. NET IMPORT RELIANCE FOR SELECTED NONFUEL MINERAL MATERIALS



#### **Every American Born Will Need...**



2.96 million pounds of minerals, metals, and fuels in their lifetime

## The End

#### Withdrawn Lands

Areas of Critical Environmental Concern (ACEC)

Fish & Wildlife Areas

Military Areas

**National Conservation Areas** 

National Parks & Recreation Areas

Research Natural Areas

Nevada State Parks

**Urban Interface Withdrawals** 

Wilderness Areas

Instant and Wilderness Study Areas

Wildlife Management Areas

#### Non-Withdrawn Lands

Major Highways

Urban Areas

National Forest

Water Bodies

**Indian Reservations**